

## VARIATIONS IN THE FLORAL STRUCTURE OF CUSCUTA L.

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The flowers of Cuscuta are rather simple and were it not for the antestaminal scales they would offer few taxonomic variables. However, the authors found interesting variations in Cuscuta while making a study of specimens on deposit in the Northeast Louisiana University Herbarium (NLU). An account of the observed variations in different species of Cuscuta is presented here.

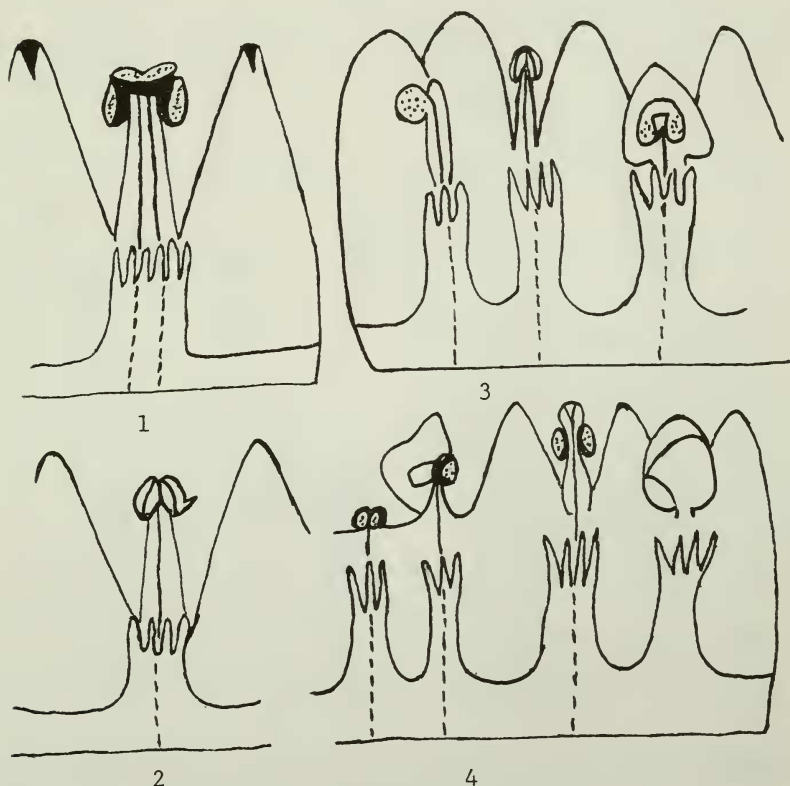
A specimen of Cuscuta campestris Yuncker from East Feliciana Parish, La. (Thomas 11546) had a filament with three fertile anther lobes (figure 1). It was parasitizing Persicaria hydropiperoides plants.

One specimen of Cuscuta gronovii Willd. ex J. A. Schultes from Franklin Parish, La. (Joye 1781) had anthers that exhibited a rudimentary lateral projection. Some anthers were reduced to various degrees and others were totally eliminated. The connective became flattened and appeared petaloid (figures 2-6). One fertile stamen developed an extended connective (figure 7). These specimens were growing on Rubus louisianus. Another collection of this species from Morehouse Parish, La. (Thomas 50299 and Pias 459) was growing on Campsis radicans, Commelina virginica, Ampelopsis arborea, and Rubus trivialis. Some of its flowers had flattened connectives with two anther cells adnate to the margins of the connective (figure 8). The stamen was reduced to a rudimentary structure (figure 9). Another specimen from Caldwell Parish, La. (Thomas 78236) growing on Campsis radicans had two adjacent corolla lobes that overlapped. The stamen with its trace and ascending scale was absent (the absence is indicated by 'x' in figure 10).

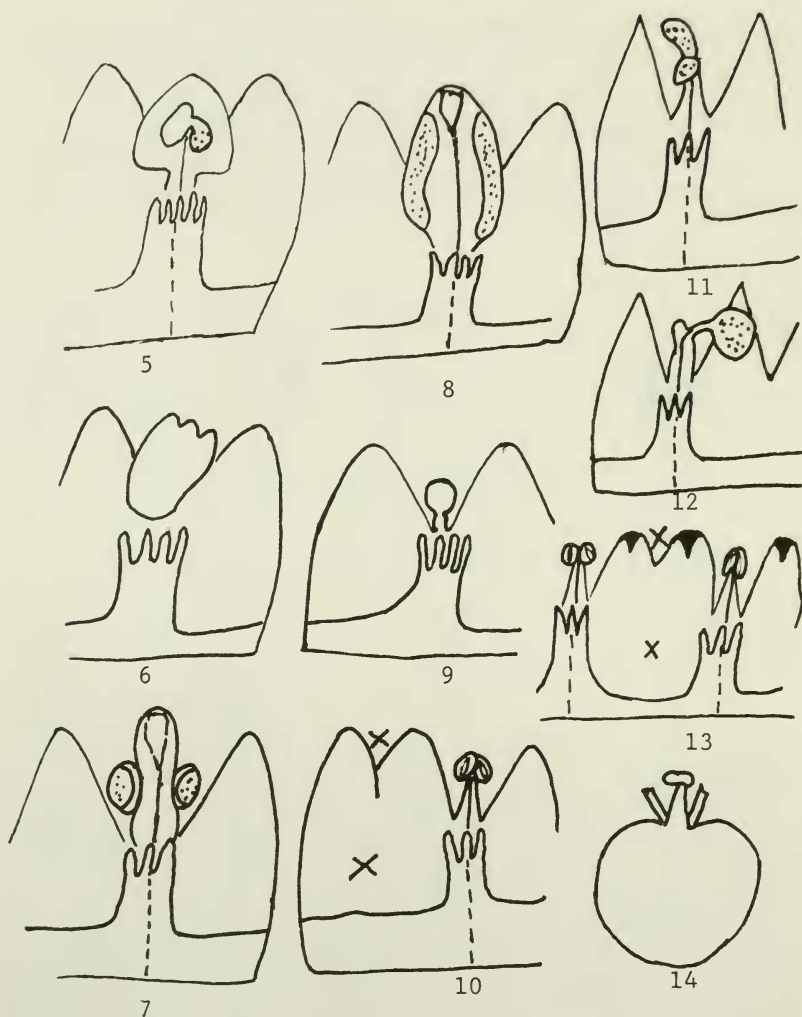
Specimens of Cuscuta pentagona Engelm. from DeSoto Parish, La. (Dixon 1385) were collected on Euphorbia corollata. These contained flowers with the two anther cells superposed and small (figure 11). Another stamen had a filament with one fertile lateral anther lobe (figure 12). One flower had a 4-lobed corolla with one lobe being large and bifurcated and in the region of the bifurcation the stamen and its basal scale were absent (marked by 'x' in figure 13).

A specimen of *Cuscuta polygonorum* Engelm. from Hampshire County, Mass. (Ahles 86318) had a flower with three short styles. One of the styles was fertile but the other two were without stigmas (figure 14). This collection was growing on *Persicaria pensylvanica*.

It is interesting to note that the above findings are mostly concerned with the absences of the stamen or with its sterility. Further, in spite of its sterility, the stamen had developed its antestaminal scale at its base.



Figures 1-4. Variations in the flowers of *Cuscuta*: *C. campestris* (1) and *C. gronovii* (2-4).



Figures 5-14. Variations in the flowers of *Cuscuta*:  
*C. gronovii* (5-10), *C. pentagona* (11-13),  
 and *C. polygonorum* (14).